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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,295	03/23/2007	Roy Christiaan Montijn	VER-206XX	9547
207 7590 05/29/2009 WEINGARTEN, SCHURGIN, GAGNEBIN & LEOVICI LLP TEN POST OFFICE SQUARE BOSTON, MA 02109			EXAMINER GERIDO, DWAN A	
			ART UNIT 1797	PAPER NUMBER
			MAIL DATE 05/29/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/575,295	Applicant(s) MONTIJN ET AL.	
	Examiner Dwan A. Gerido, Ph.D.	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4-12-2006, 3-23-2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because figures 4 and 5 contain overlapping words that are not legible. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. For claim 8 it is unclear if applicant intends to recite a classification scheme that is obtainable or if the chemical compounds are regarded as obtainable. For the purposes of examination, claim 8 will be read as both the classification scheme being obtainable by the method.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1, 2, 4-6, 8-14 and 22 are rejected under 35 U.S.C. 102(a) as being anticipated by Ng et al., (Journal of Bacteriology, January 2003, 359-370).

7. For claim 1, Ng et al., teach a method of classifying chemical compounds comprising clustering according to biochemical response profiles by exposing an organism to a multitude of chemical compounds (page 360, Bacterial strains, media and growth conditions).

8. For claim 2, Ng et al., teach quenching after exposing time (abstract, page 360, Bacterial strains, media and growth conditions).

9. For claims 4-6, Ng et al., teach the chemical compounds as antibiotics which are not cytotoxic to mammalian cells, but which the organism is susceptible (puromycin, tetracycline, chloramphenicol, erythromycin, page 360 Overview of global transcript quantitation profiles of translation inhibited cells).

10. For claim 8, Ng et al., teach the method as described in claim 1, thus the classification scheme is obtainable from the method.

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11. For claim 9, Ng et al., teach a method of classifying a chemical compound comprising providing a classification scheme, exposing an organism to a chemical compound, determining the biochemical response profile, and determining the clustered position of said biochemical response profile (page 360, Bacterial strains media and growth conditions, Microarray data analysis and hierarchical clustering).
12. For claim 10, Ng et al., teach a method of classifying an antibiotic compound comprising providing a classification scheme for antibiotic compounds wherein the antibiotics comprise reference compounds with a known mode of action and clustering the antibiotics according to similarity in mode of action (page 360 column 2 Microarray data analysis and hierarchical clustering, page 366 Hierarchical clustering of translation inhibitors), exposing an organism to the antibiotic compounds, determining the biochemical response, determining the clustered position of the biochemical response, and assigning to the antibiotic compound a known mode of action or a new mode of action (page 360, Bacterial strains media and growth conditions, Microarray data analysis and hierarchical clustering, pages 362, 364-366).
13. For claims 11-14, and 22, Ng et al., teach a method of analyzing a mode of action of an antibiotic compound comprising classifying an antibiotic compound according to a transcription response profile, identifying the genes of the organism affected by the antibiotic compounds, and determining the cellular processes affected by the antibiotic compound. Ng et al., also teach determining the cellular processes affected by the antibiotic compounds, and identifying the molecular target of the antibiotic compounds (pages 362-366, figures 2-5).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

16. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

17. Claims 3, 7, 15-21, 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ng et al., (Journal of Bacteriology, January 2003, 359-370) in view of Monforte (US 2002/0064788).

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18. With regards to claims 3, 7, 15-21, and 23-25, Ng et al., teach a method of classifying a compound comprising, clustering according to a biochemical response profile by exposing an organism to a multitude of chemical compounds (page 360, Bacterial strains, media and growth conditions). Ng et al., further teach the chemical compounds as antibiotic compounds wherein a biological response profile (transcription response profile) is determined following exposure of an organism to the antibiotics (page 360, Bacterial strains media and growth conditions, Microarray data analysis and hierarchical clustering). Additionally, Ng et al., teach classifying and determining the mode of action of an antibiotic compound based the transcription response profile of the organism following exposure to antibiotics (page 360, Bacterial strains media and growth conditions, Microarray data analysis and hierarchical clustering, pages 362, 364-366). Ng et al., also teach a method of analyzing a mode of action of an antibiotic compound comprising classifying an antibiotic compound according to a transcription response profile, identifying the genes of the organism affected by the antibiotic compounds, and determining the cellular processes affected by the antibiotic compound (pages 362-366, figures 2-5). Ng et al., do not teach utilizing principle component analysis as a means of clustering the chemical compounds.

Monforte teaches a method of identifying compounds and organisms resistant to a drug compound (antibiotics paragraphs 0035, 0036, 0054, claim 6) wherein the compounds are detected base on transcriptional activity (paragraph 0035). Monforte also teaches analyzing alterations in transcription by principle component analysis (paragraph 0076, claim 32). Monforte teaches that it is advantageous to utilize principle component analysis as a means of analyzing multiple responses over a plurality of time points. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ng et al.,

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in view of Monforte in order to analyze multiple responses over a plurality of time periods as taught by Monforte.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwan A. Gerido, Ph.D. whose telephone number is (571)270-3714. The examiner can normally be reached on Monday - Friday, 9:00 - 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lyle A Alexander/
Primary Examiner, Art Unit 1797

DAG